AMC'S ROLE IN THE ARMY'S TRANSFORMATION

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Introduction

Since Army Chief of Staff GEN Eric K. Shinseki unveiled the Army vision in October 1999, the Army acquisition community has adjusted strategies to make that vision possible. The challenges involved in implementing the Army vision are numerous. Deploying a brigade within 96 hours, with five divisions on the ground within 30 days, requires not only a fresh look at lift capabilities and reduced weight and fuel usage, but also a revised strategy on what materiel should be transported and how. Warfighting agility requires state-of-the-art command and control, sensors, mobility, and training. Lethality and survivability requirements compel the Army to acquire novel solutions to age-old problems. Sustaining this force while reducing the logistics burden also calls for new approaches.

Perhaps the greatest challenge in implementing the Army vision is to make timely changes without sacrificing near-term warfighting capabilities. The strategy for achieving this is portrayed by the three axes of transformation: recapitalization and modernization of legacy systems, fielding of an interim force, and development and fielding of the objective force. As the Army's research, development, acquisition, and logistics command, the Army Materiel Command (AMC) is directly involved in all three of these. In fact, AMC involvement in the transformation is so extensive that only a broad overview of the AMC role is possible in this article.

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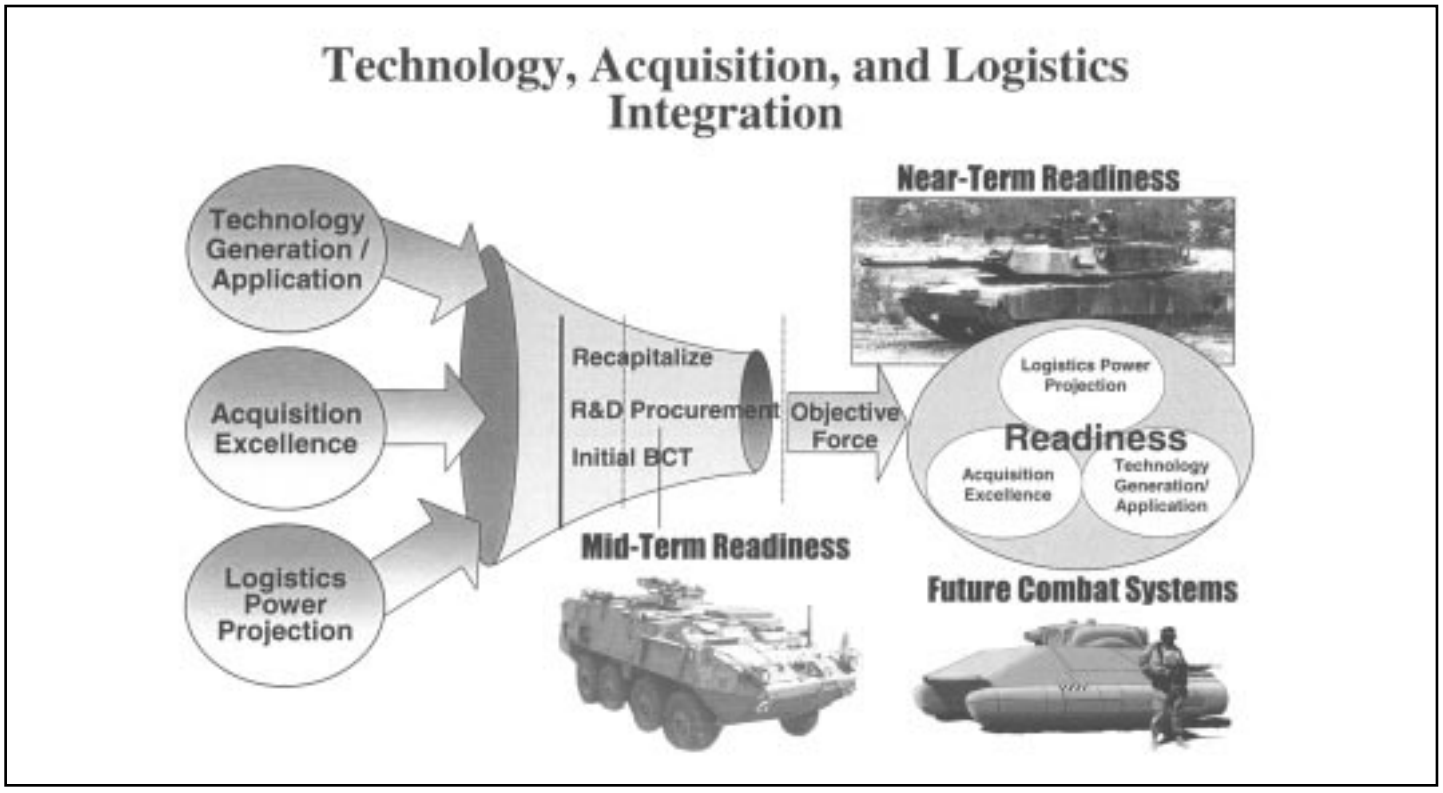
Recapitalization

Implementing the objective force will require time and resources, with initial objective force assets being fielded around FY08. Interim brigade combat teams (IBCTs) are being created to bridge the gap for small-scale contingencies and to maintain force readiness; however, it is important to stress that legacy systems will be part of the Army mix until at least 2030.

A major issue with these legacy systems is the rate at which they are aging. With readiness of legacy systems decreasing and maintenance costs increasing, a recapitalization strategy for rebuild and selective upgrade of systems was developed. Rebuild is defined as "the selected upgrade of currently fielded systems to ensure operational readiness and a zero-time/zero-mile (i.e., "like-new") system." Under this recapitalization strategy, 21 systems were validated and prioritized for recapitalization, with selected capability upgrades applied to 14 of these systems. In conjunction with program executive offices (PEOs), AMC took the lead in establishing procedures for executing recapitalization programs for these systems.

Recapitalization depends on three factors: the technical data to support the "zero-time standard" for each system, the ability of the



standard to meet system requirements, and the ability to stock and support components that are upgraded to the new standard. AMC will ensure that all 21 systems initially selected have established depot-industry partnerships. Lessons learned from these partnerships will support recapitalization decisions on more than 200 Army systems, as well as guide improvements to the stockage determination and the National Maintenance Program's ability to position components to support recapitalization.

Interim Force

The interim force is designed as a bridge from current systems to the objective force. The strategy for building this force calls for leveraging today's leading technology to procure systems that fill an immediate warfighting requirement for rapid deployability and a decisive close-combat capability. The centerpiece of these systems is the Interim Armored Vehicle, which will be fielded in IBCTs. The first IBCT, stood up at Fort Lewis, WA, is training on loaner vehicles. Five more IBCTs will be fielded later, with the first of these also to be located at Fort Lewis.

Although program management of IBCTs transferred from AMC to the PEO, Ground Combat and Support Systems in December 2000, AMC still maintains a pivotal role in the success of the interim force. From funding requirements to maintenance issues, AMC is involved in all aspects of IBCT fielding and sustainment. AMC's key IBCT responsibilities include assisting with the equipping of the IBCTs, identifying and exploiting technology advances, working maintenance and sustainment for both garrison and deployed forces, and providing ammunition through the Operations Support Command.

AMC's role in equipping the initial IBCTs (the two originally stood up at Fort Lewis with loaner vehicles) includes resolving modified table of organization and equipment shortages with the Army Forces Command, the Defense Logistics Agency, and other organizations. AMC will also support unit set fielding for follow-on IBCTs.

Developing and tracking technology advances requires addressing potential future integration issues with objective force systems. This is especially true of command and control technologies. It is important that components fielded in IBCTs be capable of working seamlessly with systems such as Comanche, Future Combat Systems (FCS), and Warfighter Information Network-Terrestrial. This brigade-level technology insertion and the IBCT maintenance and supply issues represent new ways for the Army to do business. An important aspect of fielding the first two IBCTs at Fort Lewis is the need to track and apply lessons learned to subsequent IBCTs and the objective force. Much of what is learned from the IBCTs will help determine the success of the objective force.

Objective Force

The culmination of Army transformation efforts is the objective

force. Objective force systems will incorporate technologies such as networked sensors, robotics, command and control on-the-move, advanced survivability and lethality systems, and embedded training to provide unprecedented levels of situational awareness, agility, and combat overmatch. The role of the objective force will be to reach a crisis locale in time to avoid escalation and, once there, be prepared to provide the appropriate response to any hostile action. The first objective force units will be equipped in the FY08-10 timeframe.

To meet this ambitious schedule, the Army must re-evaluate its science and technology (S&T) investment approach. Managing more than 70 percent of these investments, AMC is at the vanguard of these changes. The S&T community must identify technologies crucial to the objective force, ensure proper funding and oversight, and mature these technologies in time to be integrated into objective force systems.

In addition to rethinking technology efforts, new Army organizations such as the Objective Force Task Force (OFTF), the Office of the Program Manager (PM) for FCS, and various integrated process teams (IPTs), have been established to manage efforts, coordinate partnerships, and focus development on the FCS and other objective force programs. Through its subordinate commands; research, development and engineering centers (RDECs); and laboratories; AMC provides a unique resource in support of these new organizations. The experience base within these organizations that develop advanced technology solutions is unsurpassed.

To ensure focused efforts in support of the objective force, AMC established the Technology Integration Board (TIB). The TIB is comprised of technical directors from the RDECs, the Director of the Army Research Laboratory, and the AMC Deputy Chief of Staff for Research, Development and Acquisition (DCSRDA). The TIB reviews progress on critical objective force technology efforts and ensures that AMC meets its technical commitments for the objective force.

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Without question, the FCS is the objective force development effort that has generated the most activity. Providing a system with lethality and survivability capabilities that meet or exceed those of an Abrams Main Battle Tank, while still being C-130 transportable, challenges many S&T areas. By combining this with a network-centric approach to warfighting, reduced logistics footprint, and the introduction of robotic vehicles into the battlespace, you have effectively engaged the entire Army S&T community.

To provide the FCS acquisition community with an AMC focal point to facilitate technology maturation and transfer, the FCS IPT was established. Working with the OFTF and the PM, FCS, this IPT will coordinate AMC efforts and help combine the broad knowledge base of the FCS contractors with the specialized knowledge available through RDEC subject matter experts.

Two key efforts of the FCS IPT are the AMC technical library (TL) and the overarching Cooperative Research and Development Agreement (CRADA). The TL is a Web-based information system that provides contractor access to a comprehensive database of AMC S&T programs. The overarching CRADA is an innovative business arrangement that will streamline technology transfer. The combination TL and overarching CRADA will facilitate government and contractor teaming within the new FCS acquisition management paradigm.

Conclusion

This article provides an overview of AMC's role in the Army transformation effort. From currently fielded systems to concepts put on a blackboard for the first time today, AMC is focused on providing the best warfighting force in the world. With transformation efforts scheduled through 2032, AMC will continue to modernize aging systems, support interim forces, and provide technology solutions that best meet objective force requirements.

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